

# Central Treatment Plant and Groundwater Collection System Construction is Complete! Improves Water Quality

Coeur d'Alene Basin Cleanup

November 2021

After more than 4 ½ years of design, construction and testing, EPA and the U.S. Army Corps of Engineers finished upgrading the Central Treatment Plant and installing a groundwater collection system. The groundwater collection system is designed to capture the single highest source of metals-impacted water to the South Fork Coeur d'Alene River. The upgraded CTP has a treatment capacity of 8,000 gallons per minute. The CTP is very effective at removing metals from the Bunker Hill mine water. It will now treat metals-impacted groundwater that would otherwise enter the river. Monitoring shows the upgraded CTP is already successfully removing 99% of zinc in the influent and meeting current discharge criteria. The project will improve water quality in the river and is an important addition to the Coeur d'Alene Basin Cleanup.



Strong partnerships with the Army Corps, contractors, and the Idaho Department of Environmental Quality were essential to completing this large, complex project. The project was conducted under an innovative operate/design/build/operate contract. A temporary treatment plant was constructed so acid mine drainage from the Bunker Hill Mine could be treated while the old CTP was demolished and replaced. The entire project is operated using a computerized maintenance and management system, and has power generators in case there are grid power outages.

## The project includes:

A new subsurface cut-off wall (8,000 linear feet) and extraction wells that capture contaminated groundwater. 1,100 tons of bentonite were used in wall construction. The wall averages 28 feet deep, to a maximum depth of 41 feet. ➡



← A new mixing basin, part of the upgraded CTP, that mixes reagents with the influent to remove dissolved metals.

⇒ Continued

## The project includes:

A new seven-vessel filtration system to polish the treated waters prior to discharge. ➡

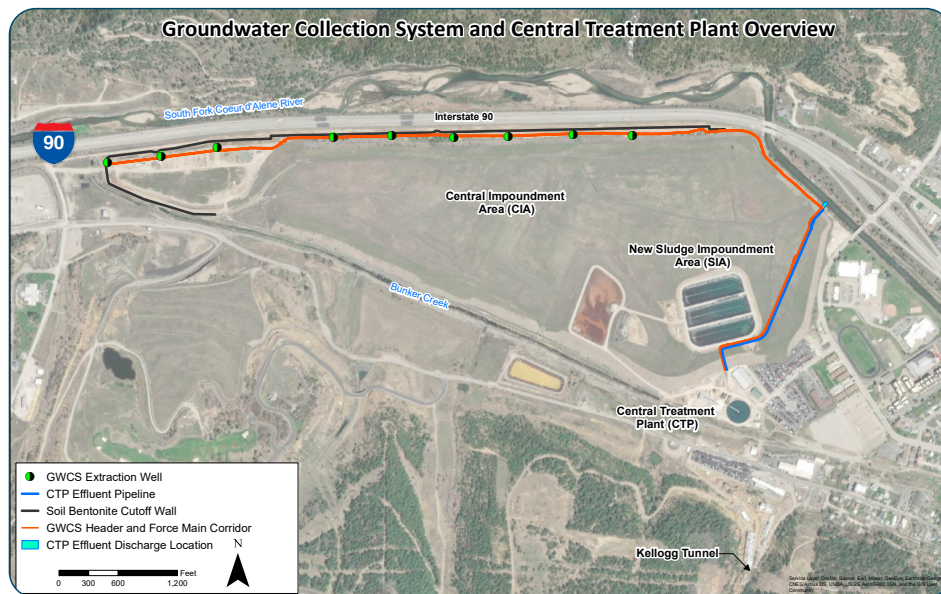
A new 14-acre impoundment area with capacity to store 100,000 cubic yards, the final repository for metals and sludge removed from the treated waters. ↓



All photographs: U.S. Army Corps of Engineers  
Map below: Jacobs

## What's next?

The Idaho Department of Environmental Quality took over operations and maintenance of the CTP/GCS on October 22, 2021, using funds provided from a past HECLA settlement.



## For more information

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